

Appln No. 09/857,715

Amdt date October 4, 2004

Reply to Office action of April 2, 2004

REMARKS/ARGUMENTS

Claims 1-23 are pending in this application, of which claim 1 is independent. Claims 16 and 17 have been amended for clarity. FIG. 1 has been added. The specification has been amended to correct a typographical error in the identification of the priority document and to add a written description to FIG. 1. The amendments to the specification, claims and drawings add no new matter and find full support in the application as originally filed. For example, support for FIG. 1 and for the written description of FIG. 1 is found, for example, in claim 1 as originally submitted. In view of the above amendments and following remarks, Applicant respectfully requests reconsideration and a timely indication of allowance.

Specification Objection

The Examiner has offered the guidelines for the arrangement of the specification as provided in 37 CFR 1.77(b). Applicant respectfully submits that these guidelines were followed and incorporated into the amendments to the specification submitted in the Applicant's Supplemental Preliminary Amendment on May 31, 2002.

Objection to the Drawings

The Examiner has objected to the drawings stating that "[a]pplicant is required to furnish a drawing under 37 CFR 1.81." Applicant submits herewith new FIG. 1 to obviate this objection. It is respectfully submits that new FIG. 1 adds no new matter and finds full support in the application as

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originally filed, for example, in claim 1 as originally submitted. As such, Applicant respectfully requests that FIG. 1 be entered and that the objection to the drawing be withdrawn.

Claim Objections

The Examiner has objected to claims 16 and 17 stating that the term RMS needs to be spelled out. Claims 16 and 17 have been amended to obviate this objection. Accordingly, Applicant respectfully requests that the objection of claims 16 and 17 be withdrawn.

Rejections Under 35 U.S.C. § 112, First Paragraph

The Examiner has rejected claims 1-23 for lacking enablement and for lacking a drawing that describes the invention. Applicant respectfully submits that the specification as originally submitted is described in such a way as to enable one skilled in the art to which the invention pertains to make and/or use the invention. Nevertheless, FIG. 1 has been added and also enables one skilled one skilled in the art to which the invention pertains to make and/or use the invention. Accordingly, Applicant respectfully requests that the rejection of claims 1-23 under 35 U.S.C. § 112, first paragraph be withdrawn.

Rejections Under 35 U.S.C. § 102(b)

The Examiner has rejected claims 1-23 under 35 U.S.C. § 102(b) as allegedly being anticipated by each of Nagasaka (U.S. Patent No. 6,157,744); Tanigushi (U.S. Patent No. 5,642,294);

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and Liou (EP 0 780 776 A1). Applicant respectfully traverses this rejection.

Claim 1 is directed to a method for separating image sequences stored on media into individual sequences. The method comprises "determining sequence changes of a first type when a mean image brightness of a current image exceeds an upper threshold value or is less than a lower threshold value, **wherein the threshold values are calculated from a moving mean value of the image brightnesses of preceding images**; setting separation markers of a first type for sequence changes of the first type." (Emphasis added.)

Nagasaka discloses a method for detecting a point of change in video frames. A separation marker is or is not set based on the calculation of a threshold value, th8. As shown in FIG. 9 and described in col. 9, lines 14-43, the threshold value, th8, is calculated by determining the average brightness of the present frame, and generating and comparing the color histograms of the present frame and with previous frames.

The threshold value, th8, is calculated based on a formula involving these color histograms and the average brightness of the present frame. Nowhere does Nagasaka disclose, teach or suggest calculating a "moving mean value of the image brightness of proceeding images" and setting a separation marker based on a comparison of this moving mean value of the image brightness of **proceeding images** with the mean image brightness of the **current image** as specified by claim 1. Nagasaka only discloses calculating the average brightness of the **present frame**.

Claim 1 also recites "determining sequence changes of a second type, based on a change in an image content between

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successive images; and setting separation markers of a second type for sequence changes of the second type." The Examiner contends that Nagasaka discloses "determining sequence changes of a second type, based on a change in an image content between successive images (908 of fig. 9)" current Office action, page 4, paragraph 5. However, step 908 of FIG. 9 discloses calculating the difference between the color histograms of the current frame and the immediately proceeding frame (see also col. 9, lines 14-43.) As such, step 908 of FIG. 9, and FIG. 9 in general, determines whether or not a sequence change has occurred based on an analysis of the color and brightness of the frames, not based on the image content of the frames. As such, Nagasaka does not disclose, teach or suggest "determining sequence changes of a second type, based on a change in an image content between successive images; and setting separation markers of a second type for sequence changes of the second type" as specified by claim 1.

Consequently, for either of the reasons given above, Nagasaka does not anticipate claim 1. Claims 2-23 depend from claim 1. Claim 1 is now believed to be in condition for allowance over Nagasaka. As such, Applicant submits that claims 2-23 are also allowable over Nagasaka as being dependent from an allowable base claim and for the additional limitations they contain therein.

Taniguchi discloses a method for a video cut point detection based on calculating an inter-image distance. This inter-image distance is the basis of a scene changing ratio. If the scene changing ratio exceeds a predetermined threshold a cut in the video is determined. The inter-image distance is

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calculated in part based on the absolute value of the sum of the intensity values of the pixels of two successive images (col. 6, lines 32-47). Nowhere does Taniguchi disclose, teach or suggest that a mean brightness is used to determine the cut. As such, Taniguchi does not disclose, teach or suggest calculating a "moving mean value of the image brightness of proceeding images" and setting a separation marker based on a comparison of this moving mean value of the image brightness of proceeding images with the mean image brightness of the current image as specified by claim 1.

Taniguchi only determines a sequence change based on the above described inter-image distance calculation. Taniguchi does not disclose, teach or suggest "setting separation markers of a first type for sequence changes of the first type" and "setting separation markers of a second type for sequence changes of the second type" wherein sequence changes of the first type are determined by analyzing the brightness of the frames and sequence changes of the second type are determined by analyzing the image content of the frames, as specified by claim 1.

Consequently, for either of the reasons given above, Taniguchi does not anticipate claim 1. Claims 2-23 depend from claim 1. Claim 1 is now believed to be in condition for allowance over Taniguchi. As such, Applicant submits that claims 2-23 are also allowable over Taniguchi as being dependent from an allowable base claim and for the additional limitations they contain therein.

Liou discloses a method for detecting a cut in a video. The method includes determining a pixel-based difference metric,

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and a distribution based difference metric, along with up-to-date test criteria, so as to drive a scene change candidate signal and for filtering the scene change candidate signal so as to generate a scene change frame list. However, nowhere does Liou disclose, teach or suggest "determining sequence changes of a first type when a mean image brightness of a current image exceeds an upper threshold value or is less than a lower threshold value, **wherein the threshold values are calculated from a moving mean value of the image brightnesses of preceding images**" (emphasis added), as specified by claim 1.

The above described method of Liou utilizes the pixel-based difference metric, the distribution based difference metric, and the test criteria to determine a sequence change of a first type, not for determining separation markers of different types. Consequently, Liou does not disclose, teach or suggest "setting separation markers of a first type for sequence changes of the first type" and "setting separation markers of a second type for sequence changes of the second type" wherein sequence changes of the first type are determined by analyzing the brightness of the frames and sequence changes of the second type are determined by analyzing the image content of the frames, as specified by claim 1.

Consequently, for either of the reasons given above, Liou does not anticipate claim 1. Claims 2-23 depend from claim 1. Claim 1 is now believed to be in condition for allowance over Liou. As such, Applicant submits that claims 2-23 are also allowable over Liou as being dependent from an allowable base claim and for the additional limitations they contain therein.

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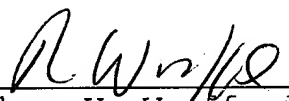
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Accordingly, Applicant respectfully requests that the rejection of claims 1-23 over each of Nagasaka, Taniguchi, and Liou under 35 U.S.C. § 102(b) be withdrawn.

Respectfully submitted,

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